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-- REMARKS --

The present response replies to a First Non-Final Office Action dated March 2, 2004. Claims 1-9 and 17-22 are pending in the application. Claims 1-9 and 17-22 are rejected. Claims 10-16 are withdrawn from further consideration as being drawn to a non-elected invention, affirming a provisional election made previously. Claim 17 has been amended for nonstatutory purposes, and not to avoid any reference, but only to correct a typographical error.

The Applicant traverses the rejection of claims 1-9 and 17-22 by the Examiner.

Claims 1-9 and 17-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Test, U.S. Patent No. 6,616,967 (Test) in view of Ling, et al., U.S. Patent No. 6,445,069 (Ling).

In order to maintain this §103(a) rejection, each and every claim limitation must be taught or suggested by the references, alone or in combination. Because the references fail to teach or suggest that the layer of electroless nickel is formed on the aluminum bond pad by a zinc displacement plating process the rejection should be withdrawn.

First, Test directly and unequivocally teaches away from use of an aluminum bond pad by teaching a copper bond pad. Those of ordinary skill in the art are presumed to understand the difference between copper and aluminum – and that copper corrodes, while aluminum does not corrode. Since the properties of aluminum and copper are quite different, the disclosure of a copper pad cannot anticipate or render obvious an aluminum pad.

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The Examiner's citation to Ling does not cure this defect however. While Ling does disclose that an aluminum pad could be used, Ling fails to teach or disclose a zincating process to obtain such a result. Furthermore, while the Examiner did not reject the claims over Lindgren, Lindgren directly teaches that a zincation process must be used, because, as known to those of ordinary skill in the art, aluminum and nickel do not adhere. Thus, without the use of a zincation process, the teachings of Ling fail to teach the present invention.

Indeed, Ling teaches that an electroless nickel deposition process is used to form the electroless nickel to the "aluminum" bond pad. See, e.g. column 4, lines 47-65 of Ling. Thus, by teaching use of a nickel deposition process, Ling directly and unequivocally teaches away from use of a zinc displacement plating process. And, as such, Ling teaches away from any combination with the "double zinc" process of Lindgren.

Therefore, none of the cited references, alone or in combination teach or suggest the combination of claimed elements, and the §103(a) rejection should be withdrawn for this reason alone.

However, the Examiner failed to point to any motivation or suggestion in the references to make such a combination. Since the prior art does not show an aluminum bond pad on a semiconductor substrate with a layer of electroless nickel formed on the bond pad by a zinc displacement process, Applicants respectfully request Examiner to withdraw the rejection. If Examiner wishes to maintain the rejection, Applicants maintain their traverse of the statement "... it would have been

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obvious..." and request the Examiner to make a showing in the prior art or in the form of an examiner declaration/affidavit supporting the conclusion that it is well known to use a zinc displacement process to form electroless nickel on an aluminum bond pad in an integrated device with a corrosion-resistant capped bond pad. See, MPEP 706.02(a): "If the Applicant traverses such an assertion, the Examiner should cite a reference in support of his/her position." Absent such a showing, Applicants respectfully request allowance of the claims.

Similar arguments apply to original claims 17 and 21. Accordingly, withdrawal of the rejections to amended claim 1 and claims 17 and 21 is requested. Claims 2-3, 5-9, 18-20 and 22 depend directly or indirectly on claims 1, 17 and 21 and are therefore patentable over the prior art for at least the same reasons. Withdrawal of the rejections to claims 2-3, 5-9, 18-20 and 22 is requested.

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SUMMARY


Examiner Rocchegiani's rejections of pending claims 1-3 and 5-9 have been obviated by amendments of claim 1, claim 17 is allowable with the amendment to correct a typographical error, and claims 18-22 are allowable without amendment based on the arguments expressed above. The Applicant respectfully submits that amendments as added herein fully satisfy the requirements of 35 U.S.C. §§ 102, 103 and 112. In view of the foregoing, favorable consideration and passage to issue of the present application is respectfully requested. If any points remain in issue that may best be resolved through a personal or telephonic interview, Examiner Rocchegiani is respectfully requested to contact the undersigned at the telephone number listed below.

Dated: June 2, 2004

Respectfully submitted,

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